

# Kentucky Environmental Quality Commission Public Meeting Summer in Kentucky 2003: Environmental Issues of Concern

## Meeting Minutes

July 15, 2003

Capitol Annex Room 113, Frankfort

### EQC Commissioners Present

Aloma Dew, Chair  
Betsy Bennett, Vice-Chair  
Jean Dorton  
Gary Revlett  
Lindell Ormsbee  
Patty Wallace  
Gordon Garner

### Speakers/Representatives Present

Ira Linville, Kentucky Dept of Agriculture  
Dr. Sue Billings, Epidemiologist, Dept. for Public Health  
John Lyons, Director, Division for Air Quality  
Jeff Pratt, Director, Division of Water  
Marie Walker and Rick Wilcox, Daniel Boone NF

### EQC Staff Present

Leslie Cole, Executive Director  
Erik Siegel, Assistant Director  
Frances Kirchhoff, Executive Secretary

### Opening Remarks

The Chair, Aloma Dew, opened the meeting at 1 p.m. Ms. Dew noted that an important part of the commission's mission is to facilitate discussion and resolution on environmental matters of public concern. She stated that the EQC meeting would focus on topics that concern all of us as we enjoy outdoor activities with our family and friends during the next few months of the summer season. The commission selected three timely issues to focus on: the use of pesticides to control disease-carrying mosquitoes, smog and ozone pollution, and the safety of our waterways for swimming and other uses.

### Pesticides and Mosquitoes

The first topic of discussion became a major public health concern last year when 75 human cases of West Nile Virus were detected in Kentucky. West Nile Virus is a potentially fatal mosquito-borne disease. A bite from an infected mosquito can cause illness or inflammation of the brain, known as encephalitis.

EQC invited officials from the Department of Agriculture and the Department for Public Health to share with us efforts underway to combat West Nile Virus. In particular EQC asked them to address the issue of spraying of pesticides to control adult mosquitoes. Besides health concerns over pesticides, there is growing evidence that repeated use of pesticides breeds resistance, reducing the effectiveness of some chemicals in some areas over time. While we recognize the need to protect human life we also need to recognize that pesticides can be toxic to animals, to beneficial insects, and to humans, and we need to use them in the minimum amounts necessary for success.

### Ira Linville, Executive Director of the Office of Environmental Services with Kentucky Department of Agriculture

Ms. Dew introduced the first speaker, Ira Linville, Executive Director of the Office of Environmental Services with Kentucky Department of Agriculture. EQC asked Mr. Linville to discuss the following:

- Provide an overview of the mosquito-spraying program at the Department of Agriculture.
- Share the name and ingredients of pesticides sprayed.
- Review the health and environmental impacts of the pesticides used.
- Discuss the current state guidelines for informing the public regarding spraying in their areas.
- And discuss alternative pesticide programs used by Department of Agriculture.

Mr. Linville introduced Mr. Bill Fraser, Director of the Division of Environmental Assistance. Mr. Linville first gave an overview of the Dept. of Agriculture's program for mosquito control. When a call comes in from the public regarding mosquitoes, the call is taken and the situation is evaluated.

The Dept. of Agriculture tries to notify people when spraying will occur. The County Judge-Executive does this by placing ads in the newspaper and public service announcements on the radio. A spray schedule is maintained on the Dept. of Agriculture's web site. Mr. Linville stated that places are not randomly selected for spraying and they work with local officials to make this determination.

Spraying is done by the Dept. of Agriculture when mosquitoes are most active—from dusk to dawn. Most spraying is done after 10 p.m. because there are fewer people and it easier to maneuver equipment with less traffic. Spraying times are important because adulticides are used which kills adult mosquitoes. A product called Mosquito Mist I is used. It contains the compound chlorpyrifos. At 10 miles per hour, three ounces or less of the compound will cover a swath of about 300 feet. If a pesticide meets the U.S. EPA requirements then it is approved for use in accordance with label directions. Mr. Linville noted, however, that no pesticide is 100 percent safe and care must be exercised in the use of pesticides.

Mr. Linville stated that if larvacides could be used all the time to control mosquitoes that would be great. But larvacides cannot be used in moving water. It's like turning the faucet on at home and it rinses out and goes down the drain. And larvacides are expensive. The briquette form of larvacides will cover about 100 square feet but it costs \$3.00 and is impractical and too costly to use. Mr. Linville indicated that the best way to control mosquitoes is to encourage people to prevent mosquito-breeding sites and to also protect themselves when going outdoors during mosquito activity.

Mr. Linville indicated common sense things people could do to protect themselves while spraying of pesticides is occurring such as paying attention to when spraying is being done and remain indoors during the application. He said people who suffer from chemical sensitivity or those when exposed to chemicals that may aggravate a preexisting health condition, need to consult with their physician or local health department and take special measures to avoid exposure. He also mentioned that people might want to turn off window air conditioners when spraying is going on and keep children away from the spray trucks.

Mr. Linville said that chlorpyrifos is one of the most widely used insecticides in the US. both in agriculture and in and around the home. Because of tests that have been done, the EPA decided that for most uses it would be taken off the market. However, Mr. Linville said that an exception was made regarding mosquitoes for public human health use. Mr. Linville stated that "Under the agreement (risk assessment agreement) public health uses include the application of the pesticide to fire ant mounds and ultra-low applications for mosquito control will be allowed to continue." He stated, "These applications do not pose a risk of concern and provide important public health

benefits.” Mr. Linville indicated that the Department of Agriculture feels comfortable using this pesticide to control mosquitoes.

Mr. Linville mentioned the Louisville-Jefferson County program. He said the county conducts its own spraying program and they use GIS equipment to identify problem areas by monitoring calls from residents.

### Questions and Answers

**Q.** Is this pesticide used in termite treatment?

**A.** Mr. Linville answered that is a different compound. Dursban TC a compound of chlorpyrifos is used in the treatment for termites. Durban TC is being taken off the market as well.

**Q.** Who can kick-off a spraying program in a county? Is it solely the County-Judge?

**A.** Mr. Linville responded that sometime calls come in from different authorities. The Dept. of Agriculture would look at the need and go from there. It would be ideal if every county would institute their own program and if they did we would train their employees—the counties of the cities and provide the training they would need to be certified to do mosquito spraying. Being in the community they would be better able to answer the call.

**Q.** When you go into a county do you do a hot-spot kind of spraying or countywide?

**A.** Mr. Linville stated that the Department does not do countywide spraying. The material we use is expensive. A 55-gallon drum costs \$2,250.00 per drum. We do go to the hot spots. Keep in mind also that we have only 15 employees and 15 foggers to cover the state.

**Q.** Would you visit a county more than once a season?

**A.** Mr. Linville responded yes, if the need arises.

**Q.** You mentioned Jefferson County’s program how many other counties have programs?

**A.** I’d say less than 2 dozen cities/counties have programs now.

**Q.** When you said you’d like to see the counties take over the spraying program do you mean financially? Most of these counties are poorer than the state.

**A.** Mr. Linville said what we would like to do is (since we can’t meet the requests when we get them) is help those counties to be in a position to help take care of some of the problem. We could possibly backstop for them when there is a peak demand. We do realize the financial problems the counties have and I don’t know what we can do with that. The idea is for them to respond where the needs are in a better fashion.

**Q.** Has the mosquito problem exasperated in the last few years?

**A.** Mr. Linville said the mosquito problem has not increased but its visibility has due to the West Nile Virus. The virus has accelerated the calls tremendously. Anytime there is a vector borne disease, we start getting more calls and people get alarmed and concerned. A lot of calls come from people who want spraying to prevent mosquitoes. They don’t understand that the spraying is to kill adult mosquitoes and spraying is not a preventive measure.

**Q.** Is any kind of water testing being done to see how much of this chemical might be ending up as runoff in river and streams?

**A.** Mr. Linville indicated that testing is not being conducted specific to the mosquito-spraying program itself. We are involved in a couple of other projects that look at pesticides in watersheds.

**Q.** Do you know if there is a specific test for this pesticide?

**A.** Mr. Linville responded yes, because the Department does testing for pesticides, but it is hard to determine whether it is in the water because of mosquito spraying or agriculture.

**Q.** Do you suppose we ought to be asking the Division of Water to add that chemical to the list of what they are looking for in the watersheds?

**A.** Mr. Linville responded that he would not touch that with a 10-foot pole! He said when they have a specific problem, we go investigate and see if we can tell where the problem is coming from and what the cause is and try to deal with that cause. It is just not with the mosquito-spraying program that we do it.

**Q.** The fact sheet says the pesticide use is highly toxic to honey bees. What steps are you taking to prevent this?

**A.** Mr. Linville said the Department has not had any particular reports about spraying causing any impact on honeybees. The biggest problem to the honeybee is a mite that is wiping them out. Mr. Linville noted that the pesticide used would affect insects. He said they are not doing anything to prevent impacts to various insects.

**Q.** How many years has the Department of Agriculture conducted mosquito spraying?

**A.** Mr. Linville said that the Department has been spraying mosquitoes for a long time—1960 legislation was passed providing us the authority to do so.

**Q.** What are the criteria used to determine if adulticide spraying should occur?

**A.** Mr. Linville said that the agency looks at the number of calls, density in the area, scouting, and how local officials feel about the need for an area to be sprayed.

**Q.** In Lexington I know they spray, but I cannot find any posting of where they are spraying or when they are spraying. Is this standard practice for the counties and cities to inform the public or is it your obligation to inform the public?

**A.** Lexington/Fayette has its own program. We do not do spraying in Lexington/Fayette County unless it is an emergency. My suggestion is to talk to the County Health Department.

**Q.** In Kentucky do we need a more standardized approach to spraying? Different types of chemicals are used in different areas, some counties notify when spraying is to be done, but others do not. Do you feel there is a need for some statewide guidance or policy regarding mosquito spraying?

**A.** Mr. Linville stated that he believed guidelines would help but they would have to be looked at as guidelines. Again, you have local situations that until you are in that community and see what is going on there, it would be hard to have a one-size fits all. It would be beneficial from that standpoint, but remember that local governments are strapped for finances and whatever we do must take that into account.

**Q.** What about looking at spraying on a regional scale, such as through the Area Development Districts?

**A.** Mr. Linville indicated that when we get to the county, a representative from that county would ride with our driver because he knows where to go. It would help to get the Area Development Districts involved because they do know where the problem is.

**Q.** I am concerned about the use of chlorpyrifos. I have researched pesticides and chlorpyrifos is classified as a toxicity level one according to the OSHA. A category one says, “they pose a

significant risk of adverse acute health effects at low concentrations or they are carcinogenic, heritogenic, neurotoxin, reproductive effects. Given that a recent CDC report has found chlorpyrifos levels in children twice that of adults. Given the fact that this chemical is being phased out of residential uses where children might be exposed, I am concerned about your choice of chlorpyrifos.

**A.** Mr. Linville responded that he thought there has to be concern with any pesticide. He pointed out that the EPA has stated that no pesticide is considered 100 percent safe; they are after all pesticides. This particular product that we use is labeled for this particular use according to EPA. To change products or look at others, we have done that and continue to look for new products and ways we can do a better job. For now, though it looks like we will be staying with this particular product.

**Q.** But you are actively searching?

**A.** Yes, we do that continuously.

**Q.** According to the Department of Public Health web site, West Nile Virus was diagnosed last year in 513 equines and 75 human cases. It seems to me that this toxic chemical is being used for widespread use for a very low percentage of cases and I am very concerned about this.

**A.** Mr. Linville said they must weigh that against the number of calls and the number of sprayings to be done and it is very difficult to balance. I do know that if we were not doing something, we would see the difference in that and for other vector-borne diseases as well.

**Q.** I want to know if you have any research on the amount of residue that is left in the morning after the spraying whether it is safe for children to play out in the yard, go barefoot, play with toys in the sandbox and in pools, eat garden vegetables. Speak a little about the residue.

**A.** Mr. Linville said he had no specific information on that.

**Q.** But someone does know that answer?

**A.** Mr. Linville responded that EPA should have that data.

Mr. Linville thanked the Commission for the opportunity to speak about the West Nile Virus program and offered assistance whenever needed. The chair thanked Mr. Linville for his time and asked if he would be able to stay in case there were more questions for him later.

#### Dr. Sue Billings, Epidemiologist with the Dept for Public Health

The chair next called Dr. Sue Billings, Epidemiologist with the Dept. for Public Health. Dr. Billings discussed the health Department's efforts to monitor and control West Nile Virus in Kentucky.

Dr. Billings introduced Mr. Guy Delius, Assistant Director of the Division of Public Health Protection and Safety within Department for Public Health.

Dr. Billings manages the West Nile Virus surveillance program. Surveillance includes testing dead birds, keeping records of horses that have tested positive, mosquito trapping (this year in 15 counties) and human cases and follow-up on lab reports of human cases. Last year there were 75 human cases of West Nile Virus in 33 different counties, 55 of which were severe cases. The average age of an infected person was 59. There were 5 deaths resulting from West Nile Virus with the average age 74 years. There were also 22 human cases of the milder form of West Nile fever with the average age of 55. The number of horses effected was 513 + from 78 counties.

When this virus first came to the U.S. it was dead birds in New York that became the tip-off that something was wrong. Birds are an early indicator of the presence of West Nile virus. The other mammal susceptible to West Nile Virus is the horse. Dogs, cats, llama, and cattle are not very susceptible to this virus. West Nile Virus is different now than it was in Europe, Asia and Africa. The virus did not kill birds in these countries.

Last year, there were 693 positive birds from 101 counties in Kentucky -- which means that the West Nile Virus was active almost all over the state. Horses were positive from 78 counties. Mosquito trapping last year was done in 14 counties. This is a very time consuming and an expensive type of surveillance. We had positive mosquito pools in 9 of the 14 counties.

This year to date, we have had no human cases of West Nile Virus, however, there has been two positive cases in horses --in Madison and Franklin county--and one positive case in a bird in Crittenden County. Compared to last year at this time we had 11 positive birds. The peak time for mosquitoes and West Nile Virus is August and September.

Bird surveillance is done through Local Health Departments. They are provided mailers with guidelines to be followed and if a resident calls about a dead bird that is suspect (and are willing to bring it to the Health Department) the health department will submit it to the lab. Horse owners do equine surveillance. If a person has a sick horse they call a vet and get it tested. If it dies, it can be taken to the UK Diagnostic Lab. We get our results from UK.

There is a website for West Nile Virus where we post maps with current activity of counties that have positive birds, mosquitoes, horses or human cases. The Web site has been revised this year ([WestNileKentucky.gov](http://WestNileKentucky.gov)) and links together Cabinet for Health Services, Department of Agriculture, Division of Waste Management, and Department of Fish and Wildlife. Other educational outreach includes bookmarks, brochures, and posters with the theme of "Stop mosquito before they start" that are distributed through Health Departments.

Dealing with source reduction is key. The mosquito that vectors the West Nile Virus is the Northern House mosquito. They live in the gutters, flowerpot drip trays, and other household places. We do stress that less than 1 percent of all mosquitoes in an area would actually be carrying the virus. And less than 1 percent of people bitten by an infected mosquito actually develop symptoms. And 20 percent of people who get exposed might have a flu-like illness. Most people would not realize they have been exposed and 1 in 150 would develop a serious illness. New this year is a booklet given to the Health Departments called Instructions and Resources to Control Mosquito-borne diseases.

#### Questions and Answers

**Q.** Is there any correlation to the wet spring and mosquito growth?

**A.** Mosquitoes like standing water. It's the puddles that are left after the rains that are the problems.

**Q.** Do you work with the Department of Agriculture to look at the pesticides that are being sprayed? Pesticides affect public health so do you review the use and application?

**A.** This year we did move to a new level of communication and collaboration with other agencies. After last year, all agencies were being inundated by mosquito questions. This year we knew that we would have to come together in a unified effort to meet and discuss the different issues; seillivance, spraying, all on the same page and moving forward. Now we are communicating thoroughly and making sure that products the Department of Agriculture is using

are safe and that the products used are in conjunction with EPA guidelines. We have an over all movement to have a unified effort toward mosquito control this year.

**Q.** Do you encounter people who want a choice of spraying involuntarily or that do not want spraying?

**A.** Most of the calls, about 99 percent of the calls want someone to do something about the mosquitoes. They don't care what it is. There was only one complaint last year about spraying. Most want to get rid of the mosquitoes. We try to educate people on ways to prevent mosquitoes.

**Q.** Are the calls mainly because people do not know about mosquito and in a panic kind of thing because of West Nile Disease?

**A.** I think that a part of it is alarm. They hear West Nile and they think they can get it by picking up a dead bird. The media started very early this year on mosquito issues. We have tick-borne diseases that we deal with every year and there is no issue out there about ticks. A lot of it is education. There is a need in this state for adulticide spraying. If there is proven activity of West Nile Virus it is justified in those areas to use adulticide spray. I believe the use of adulticides is important. As time goes on there will be safer products but we need to know how to control mosquitoes. 75 human infections of West Nile Virus last year does not seem like very many, but those 5 families who lost a loved one, it was important.

**Q.** Is this education we need to take door to door?

**A.** One of the first positive pools of mosquitoes last year was found in subdivision in Fayette County. Drainage ponds in subdivision were treated with larvacide. Some counties use door hangers to educate the public about mosquito control or go door-to-door once they have positive birds.

**Q.** Last year were there any severe cases of encephalitis in children in Kentucky?

**A.** We had two children with severe encephalitis, one age 7 and one age 10. Both recovered. Severe cases of West Nile Virus mainly affect the elderly.

The chair read aloud a draft resolution concerning mosquito spraying. A motion was made by Betsy Bennett to approve the resolution and seconded by Jean Dorton. After discussion, some language was changed to clarify the recommendations. The motion passed unanimously. **A copy of the Mosquito-Spraying Resolution is attached and made a part of these minutes.** The Chair thanked the speakers for coming.

### **Summer Air Pollution Issues**

The next topic of discussion focused on air quality and the impacts of summer smog. Chair Dew noted that last year there were 18 days of smog alerts in Northern Kentucky and 28 days where ozone levels exceeded safe standards in Louisville. Poor air quality affects everyone, but some groups are particularly sensitive to ozone, including children and adults who are active outdoors, and people with respiratory diseases, such as asthma.

Children are especially vulnerable to smog because they breathe more air per pound of body weight than do adults. In addition, their respiratory systems are still developing, making them more susceptible to environmental threats. Children also are more likely to have asthma, which although not caused by ozone may be aggravated by ozone exposure. At Kentucky's only hospital dedicated to exclusively treating children, asthma is the number one cause of inpatient admissions and the number 3 cause of emergency room visits, according to the Kentucky Chapter of the American Lung Association.

John Lyons, Director with the Division of Air Quality

The Chair introduced John Lyons, Director with the Division of Air Quality. Mr. Lyons gave a power point presentation specific to the 8-hour ozone standard in Kentucky.

Ground level ozone pollution, commonly referred to as smog, is formed when volatile organic compounds (VOCs) react with nitrogen oxides (NOx) in the presence of sunlight. The 8-hour ozone standard was adopted in Kentucky in 1997. It is based on 3 years of monitoring data. The effective date to submit the proposed ozone boundaries is July 15, 2003. The effective date of the official designation for nonattainment will be April 15, 2004.

Industries in nonattainment areas must have tighter emission controls and must obtain or purchase emission credits or offsets for increased emissions in the area. Emissions from vehicles must also be estimated and growth projected. If a mobile emission increase is projected, it is likely that federal highway money will not be eligible for use in the plan.

Counties at this time in non-attainment are Christian, Warren, Jefferson, Oldham, Bullett, Kenton, Boone, Campbell, Boyd, and Bell. There are 6 counties that could possibly experience problems. The next step is for states to submit recommendations for air quality area designations based on area ozone levels. The U.S. EPA will review and promulgate a final rule and guidance for implementing the 8-hour standard. In the winter of 2003, the EPA will propose designations. EPA will have the final designations by April 15, 2004. The states will prepare and submit extended inventories and state implementation plans (SIPs) to EPA. The SIPs must include emission inventories, modeling analysis, monitoring data, and control strategies. Division of Air will meet with local area officials and help them understand the impacts of the non-attainment designation.

Questions and Answers

**Q.** Do you have figures for Cabbie and Wayne Counties in West Virginia? What about the power plant in Lawrence County Kentucky?

**A.** Cabbie County is in non-attainment. There are no monitors in Wayne County and Lawrence County.

**Q.** So you don't see any problems with the power plant in Lawrence County?

**A.** We are talking about ambient air quality. You cannot point to one thing and say that is the problem. The power plants certainly contribute to ozone issues. They are huge emitters of NOx one of the precursors of ozone formation, along with VOCs that you see from automobiles and various stationery sources.

**Q.** Why is there no monitor in Marshall County?

**A.** The monitor is in Livingston because it is downwind of Marshall County —the area of expected impact. When we have an air quality problem in Livingston, we look to Marshall County as the source.

**Q.** But why not put a monitor in Marshall since you know there are problems there?

**A.** Livingston County is not in non-attainment.

**Q.** What influence do the airports in Northern Kentucky and Jefferson County have on attainment?



A. They certainly do contribute to ozone. Louisville tried having planes taxi with only one engine versus two or three. And doing take-off patterns at lower elevations so the engines do not have to be revved so much.

Q. If either airport were looking at expansion, would this non-attainment status potentially impact their capacity to do that?

A. I don't know if they would be prohibited from doing that or not. I guess they could be potentially impacted.

Q. Which counties are moderate and which ones are marginal?

A. EPA has not finalized their guidelines and we don't know yet.

Mr. Lyons indicated that the state has had 20 violations of the standard in 2003 to date. Most of those were three weeks ago in mid-June. We have had three in Western Kentucky in April and none until June. Boyd County has already had its fourth highest ozone levels in 2003 of .088.

### **Water Quality and Swimming Advisories**

Water quality was the focus of the next discussion. Ms. Dew indicated that Kentucky waterways are impacted by a number of pollutants, however the leading cause of pollution is pathogens associated with animal and human waste. Contact with waterways contaminated with bacteria can create the potential for acquiring infectious diseases. Symptoms vary, but nausea and vomiting with or without fever, are most common. It's not unusual for people to mistake a case of waterborne disease for food poisoning or a "24-hour flu bug."

The commission invited Jeff Pratt with the Division of Water to discuss water quality problems in the state. EQC also asked Mr. Pratt to update the commission on the status of the antidegradation rule for Kentucky.

#### Jeff Pratt, Director, Ky. Division of Water

Mr. Pratt stated that the Department issues swimming advisories for lakes and streams jointly for Environmental Protection and the Cabinet for Health Services. These advisories are applicable to primary contact recreational waters, which by definition are those waters suitable for full-body contact during May 1 through October 31.

The Division of Water has an ambient water quality monitoring network all across the state where it samples monthly and if there is a problem such as fecal coliform, the agency will go back and do a much more intense sampling in order to determine whether to issue a swimming advisory. The criteria used for issuing a swimming advisory is 5 samples taken in 1 month that exceed 200 colonies per 100 milliliter as a monthly geometric mean. If that is the case, a swimming advisory will be issued in conjunction with the Cabinet of Health Services.

Swimming advisories in some water bodies have been in effect since 1990. The principal sources attributable to swimming advisories are straight pipes, failing septic systems, combined sewer over-flows and sanitary over-flows. To help correct the problem, the Division of Water has an on-going straight pipe initiative. To date there have been 1, 297 straight pipes investigated and 712 Notice of Violations (NOVs) issues. Of the 712 NOVs issues, nearly 278 have been resolved. Other on-going activities include several sewer projects. A new wastewater treatment plant in the Harlan-Evarts will provide future service in the Evarts area. On the North Fork of the Kentucky River, the Vico wastewater treatment plant is going to be rebuilt. The Fleming-Neon project will provide sewers to 531 homes in that area. In the Blacky area there is a sewer project to serve several homes and a new regional wastewater treatment plant. This is a PRIDE project.

PRIDE has played a pivotal role in helping address the straight pipe problem in Eastern Kentucky. In the Hazard area of Beullen-Hartburn area, a plan was just approved that will provide sewer service to 165 homes that have straight pipes. Beneficial results will be seen with all the projects.

### **Water Quality Standards update on Antidegradation Rule**

Mr. Pratt told the commission that Kentucky is currently undergoing its triennial review of all water quality standards and regulations with respect to current water quality trends in the state. The U.S. EPA found the antidegradation provision of Kentucky's water regulations deficient in 1997 and again in 2000. Their concern was that not enough high quality waters in Kentucky are being subject to antidegradation review. Several approaches to address the EPA can be taken.

The Division of Water's preferred approach to antidegradation is to establish a tier for high quality waters by default. With that would come the requirement to perform, as part of the antidegradation review process, a simple alternative test and a social-economic demonstration. The Division of Water is looking at providing the option that would consider allowing facilities to go ahead and be permitted at stricter limits than would normally be required--that is, the limits that would be imposed on a water designated as an exceptional water. Exceptional water is water that has excellent aquatic and/or micro vertebra population by definition and is afforded a higher level of protection. That's also a part of Kentucky antidegradation review process and exceptional waters facilities can be permitted at half the normal permitting limit for water quality standards. The Division of Water is looking at providing that as an alternative to high quality water as well. If that is something that is not feasible, then facilities are going to be required to go through the alternative test and the social economic demonstration as far as the antidegradation review process. That is not the only approach, but that is the preferred approach.

The Division of Water is also going to review numerous human health criteria for several constituents. This change is principally due to the U.S. EPA's changes in fish consumption values used to determine the risk and concentration levels from a fish consumption standpoint. The Division of Water will also be adding ecoli along with the currently existing fecal coliform as criteria for contamination. The Division of Water is also proposing to add approximately 200 exceptional waters to the current list of exceptional waters, which now are 75. There will be a few other minor changes proposed. Some just housekeeping and errors made in the last tri-annual review. As far as the time frame, the Division of Water is looking at filing the regulation in mid to late August.

### Questions and Answers

**Q.** Are stakeholders being involved in that triennial review at this point?

**A.** Yes, I recently discussed the review during the Watershed Watch forum put on by the Judi Petersen with the Kentucky Waterways Alliance. We are also scheduling meetings with environmental groups to discuss where we are and what we are trying to accomplish and get some feedback from them as well as the industrial and private representatives.

**Q.** But no consensus development?

**A.** No

**Q.** Did I hear you say that there will be more fish advisories?

**A.** No, I don't think there will be more at this time. I think you will continue to see more swimming advisories over the next several years.

**Q.** What about additional fish consumption advisories?

A. No, I'm not aware of anything.

Q. I thought that EPA had changed their standards for fish consumption?

A. EPA changed the water quality standards for some constituents that end up in the fatty tissue or the muscle tissue of fish. In terms of determining what is an acceptable level, we want to assure that you are not going to have a high accumulation or concentration in the fish tissue and thereby represent a hazard from the standpoint of fish consumption. When a water quality standard is calculated, a person is assumed to be exposed by ingesting a certain amount of fish per day, week or month. EPA has changed those fish consumption values. What they have done is increased that value based on studies that a higher value was needed to reflect consumption of fish by anglers and subsistence fishers. Instead of the average person eating 6 grams of fish per day, they increased it to 17.9 grams per day, a nearly threefold increase. When that consumption rate is increased, that changes the water quality standard for that constituent.

Q. How are the fish in the Big Sandy doing after the slurry spill?

A. The biologists are surprised at the come back on the creeks that were impacted during the spill. They are seeing a much faster recovery then they anticipated and they are reproducing population as well.

Q. Does West Virginia own the Tug Fork? Does the Division of Water check on the Tug?

A. I'm not sure.

Q. I am assuming that if they implement this new antidegradation rule it is going to require additional staff. Has the cost been estimated by your agency of what it will cost to implement and if so, what is the expectation of receiving funding to support the implementation?

A. No, we haven't gotten down and looked at how many additional staff at this point in time.

Q. Relative to the ambient network when you all are in the process of trying to identify a stream to put a swim advisory, do you use the 400 criteria like you would take once a month at the ambient station? Is that like the threshold?

A. I believe it is. And then they go back and do the five.

Q. Have you ever considered looking at the 1,000 or so water samples taken by the Watershed Watch Program?

A. There has been a lot of discussion by the volunteer groups as to how we are using the data and are we using it to the maximum benefit. We use the Watershed Watch data as a screening tool and "red flag" areas. Then the Division of Water will go out and verify that. We are trying to make some strides of how we use that volunteer data. We are trying to utilize that data for more than just a rough screening.

Q. What happens when a stream is taken off a swim advisory?

A. They continue the ambient sampling.

Q. The sections you identified on the Licking, North Fork, Upper Cumberland that have been on the no swim list since the 1990s, some of the small treatment plants were in violation and Division of Water implemented some significant work to try to bring them into compliance. Do you think that is well in hand at this point?

A. I think it has been eliminated at the major source. In certain pockets and certain areas, it is still a contributing factor.

Q. The statistic you gave "278 straight pipes have been resolved" what does "resolved" mean?

A. Several scenarios, one being; once we investigated, it turned out that there was a sewer line right at the edge of the road in front of the house requiring them to tap-on. Another one is requiring them to go to the County Health Department and look into getting an approved homesite septic system. A lot were resolved in this way. Others were resolved by an agreed order. We have identified them as being in violation of a straight pipe issue and they are in an area where they are about to be sewered. We have an agreed order that says when the sewer comes through they have to hook on.

Q. My feeling is that it is going to take considerable effort to resolve antidegradation issues and the half normal limit will not be enthusiastically embraced by either side. I do want to commend you on expanding the exceptional waters list. I think that is a big move and very important.

A. We feel like we can come up with something that EPA can live with. But I don't know if we can come up with something that we can get through the legislature.

Q. What happens if the legislature won't accept the state antidegradation regulation?

A. Then it puts the heat back on EPA to move forward with the promulgation of regulations to deal with it. They don't want to deal with that but they recognize that they are going to be up against some challenges.

Q. Is the antidegradation separate from the rest of the triennial review issues or will it be included in the regulatory package submitted to the Legislature?

A. We are proposing it as a package.

Q. So if the legislature rejects the antidegradation proposal, then you lose the entire triennial water quality regulatory package.

A. Yes.

### **Daniel Boone National Forest Draft Management Plan and EIS**

The final agenda item was a review of the Daniel Boone National Forest draft National Forest Plan and the environmental impact statement. Commissioner Dew introduced Marie Walker and Rick Wilcox with DBNF.

Ms. Walker gave a brief history and the mission of the Daniel Boone National Forest. She said the forest is required to be managed for the greatest good for the greatest number in the long run. The National Forest Management Act was developed in 1976, which mandated that each national forest would develop a forest plan to balance the public's use with resource management—caring for the land and serving people.

A revision of forest management plans is done every 10 years. In 1995 the DBNF looked at the 1985 plan to see if it needed to be revised. The staff looked at the changes that occurred between 1985 and 1995 and decided the plan needed revision. Some of the needed changes that were identified were:

- To need to look at outcomes versus outputs. The 1985 plan is based largely on outputs.
- What is that desired future condition we're looking for as a forest and how do we reach that. This has lead more to an ecosystem management approach, emphasizing the biodiversity and viability of species. There are more than 4,000 plant and animals species in the forest and 32 are on the federally threatened or endangered species list.
- We also looked at recreation use patterns. As you all are aware, in 1985 there was not the level of off-highway vehicle use that we now see in the forest. There is much more disbursed recreation use in activities that occur not in a developed setting mainly trail use, camping.

- After the plan revision was signed in 1985 there was a new law concerning federal oil and gas reserve leases that gave the forest service more discretion in approving leases and stated that we need to put in our forest plan the availability of those reserves.
- We continue to see threats to the forest health such as the Southern pine beetle and gypsy moth.
- We have done inventories on our heritage resources and identified many potential heritage resources sites.

All these are changes that have occurred since the 1985 plan which lead us to decide that yes we do need to revise the plan. The plan revision process began in June 1996 when we issued a notice of intent in the Federal Register. The public was asked to comment on what the plan should address. Based on those comments and internal comments we identified 14 significant issues that have been carried forward in the plan revision process and 5 broad management themes of how the forest could be managed.

The Proposed Revised Forest Plan is based on the preferred alternative from the Draft Environmental Impact Statement. The Proposed Revised Forest Plan does the following:

- Establishes the management direction and associated long-range goals and objectives for the Daniel Boone National Forest for the next 10 to 15 years.
- Establishes Management Areas, which reflect biological, physical, watershed, and social differences in managing each area of land; and management prescriptions, which reflect different desired conditions and provide the specific management direction used to develop projects to implement the Forest Plan.
- Specifies the standards, which set specific constraints or parameters for achieving the goals, objectives, and desired conditions.
- Identify lands suitable for various multiple uses including timber production and establishes the Allowable Sale Quantity.
- Makes the leasing “consent decision” for federal oil, gas, and coal reserves; and provides Lease Notice, Standard Lease Terms, Controlled Surface Use, and No surface Occupancy stipulations to make federal minerals available in ways that are consistent with desirable conditions.
- Establishes the monitoring and evaluation requirements needed to ensure that the direction is carried out and is achieving the intended results.

The Forest Plan guides broad-scale decisions, similar to city zoning allocations. They do not commit to site-specific projects; rather they establish overall goals and objectives that the Forest Service will strive to meet. The goals that are emphasized in the Daniel Boone Proposed Revised Forest Plan are to:

1. Maintain a variety of life and recover native and desirable non-native populations that are rare and declining.
2. Improve the ability of the forest’s ecosystems to withstand and recover from disturbance especially catastrophic disturbance, either naturally occurring or introduced. Reduce the compounding impacts of catastrophic events.
3. Protect or enhance the individual values and ecological functions of floodplains, groundwater, lakes, riparian areas, springs, streams, and wetlands.
4. Maintain or improve soil productivity and air quality.
5. Protect geological features such as arches, caves, and rock shelters.
6. Preserve heritage resources.
7. Provide a sustainable mix of desired uses, valued characteristics, and services to improve the long-term benefit to local communities and the public.

8. Provide renewable products on a sustainable basis when such provision is compatible with desired future conditions.
9. Provide mineral commodities for current and future generations commensurate with the need to sustain the long-term health and biological diversity of ecosystems
10. Conserve forest resources while accommodating the rights of private mineral owners.
11. Provide habitat to sustain wildlife populations suitable for recreational pursuits such as viewing, photographing, hunting and fishing.
12. Provide a road and trail network, buildings and other facilities that support the forests desired future conditions
13. Obtain a National Forest ownership pattern that facilitates management efficiency and supports the forests desired future conditions
14. Engage the public and other agencies in cooperative, collaborative efforts that build trust and support in helping to meet desired future conditions.
15. Provide interpretive and educational services to a wide spectrum of the public, including visitors, school children, interest groups, and civic organizations.
16. Improve delivery of assistance to rural communities.

The Daniel Boone National Forest is divided into four Management Areas along large watershed boundaries. These are:

- The Licking River
- The Middle Kentucky River
- The Upper Kentucky River
- The Upper Cumberland River

There are 21 management prescription areas. Management prescriptions are allocated within and sometimes across the Management Areas. The management prescriptions are designed to specifically address citizen and management issues and concerns based on the capability and suitability of lands for various resource activities. Each management prescription is focused on the desired condition of the land, and provides for multiple uses, resources, services and values.

- Rock Creek Research Natural Area
- Cliffline Community
- Riparian Corridor
- Rare Community
- Designated Old-Growth
- Significant Bat Caves
- Habitat Diversity Emphasis
- Clifty Wilderness
- Beaver Creek Wilderness
- Developed Recreation Areas
- Large Reservoirs
- Red River National Wild and Scenic River: Wild River Segment
- Red River National Wild and Scenic River: Recreational River Segment
- Proposed Wild and Scenic River: Marsh Creek Wild River Segment
- Proposed Wild and Scenic River: Cumberland River Segment
- Proposed Wild and Scenic River: Rock Creek Segment and Marsh Creek Segment
- Recreational Rivers
- Red River Gorge Geological Area
- Natural Arch Scenic Area
- Ruffed Grouse Emphasis

- Communications Site
- Source Water Protection

In summary, comparing the 1985 plan to the proposed plan the main changes are:

- There is a greater emphasis on the desired future condition of the national forest.
- The forest is zoned differently.
- The plan reflects a change in how biological diversity is provided.
- Management direction for riparian areas is handled differently.
- The role of tree harvesting is viewed differently.
- The importance of fire is better understood.
- How the national forest deals with old growth will change.

Ms. Walker concluded that the public comment period would end on August 14, 2003.

#### Questions and Answers

**Q.** What have been the comments so far?

**A.** We have not seen the comments. They go to a content analysis team first.

**Q.** A lot of off road vehicles come to Kentucky from Illinois and Ohio. They come and ride in Kentucky because they aren't allowed to ride in their home state. Are we wise to let that happen?

**A.** It is hard for us to be out there and watching all of the DBNF for off roaders. There was a lot of illegal use going on and there still is. But we feel if we provide a place for them to ride and charge a fee to ride and do the monitoring, then the money is used to put back into the area for maintenance and resource protection. We feel that is the best way to deal with these vehicles.

**Q.** Do you feel like they stay in those areas?

**A.** We are still getting illegal use but we do see great improvement.

This plan is programmatic as far as its management direction. When we work on projects each one will involve another environmental analysis and public comment opportunity. So as we work through these issues such as off-road vehicles, any additional trails that would be added to the system would be done through a project decision and it would have to be an environmental analysis and public comment opportunity.

**Q.** The Master Logger Program seems to be going belly-up. I have seen places where no Best Management Practices (BMP) has been used. What have you seen?

**A.** That would be on private land. That has been one of the criticisms of downsizing the timber management in the national forests. In the past, the loggers learned a lot about the use of BMPs while working on national forests lands and then would apply them to private lands. You might want to contact one of the six District Ranger areas and ask them what they are seeing. The Master Logger Program certification is through the Division of Forestry.

**Q.** When you are thinning the forest, it is cheaper to hire a crew to go in and cut those trees and leave them lying or is it cheaper to sell the lumber?

**A.** It depends on the situation. That is not addressed in the Forest Plan but will be addressed project by project.

**Q.** Does the Forest Service make a profit on timber?

A. No, not in this part of the country unless timber harvest is the only reason we are doing it is to make a profit. If we drop all other reasons for managing the land, we can make a profit on timber sales. And that is what happens on private lands.

Commissioner Dew thanked Marie and Rick for coming to the meeting and their patience since the agenda had run over.

#### **Other Business**

##### Consideration of Martin County Coal Slurry Spill Resolution

Commissioners reviewed and discussed a draft resolution prepared in response to the June 16-17 public forum on the Martin County Coal slurry spill. The recommendation re-emphasizes the need for more public participation and public outreach in the restoration of the spill site. Betsy Bennett made a motion to approve the recommendation, seconded by Gary Revlett and passed unanimously. **The recommendation is attached and made a part of these minutes.**

The next meeting is scheduled for September. A tentative date has not yet been set. EQC will hold a public forum in Louisville on October 16 on Children's environmental health issues. A tentative meeting is also set to hold a forestry forum in November to review the findings of the Forest Service Survey. In December EQC will hold its annual work session.

The Chair recognized Patty Wallace. She attended and was the speaker for the Kentucky Water Alliance meeting and received the Spirit of the River Award on behalf of EQC for its long-term dedication to educating policy makers and the general public on water quality issues.

With no further business, the meeting adjourned at 5:00.



---

Signed

---

Dated

#### Attachments

1. Mosquito Spraying in Kentucky Resolution
2. Martin County Coal Slurry Spill recommendations